



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS .  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/670,869

09/27/2000

Jun Hirai

450100-02731

6828

20999

7590

08/02/2006

FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE- 10TH FL.  
NEW YORK, NY 10151

EXAMINER

WANG, TED M

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/670,869

Applicant(s)

HIRAI, JUN

Examiner

Ted M. Wang

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-8, 10, 11 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10, 11 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 24, 2006 has been entered.

### ***Response to Arguments***

2. Applicant's arguments, filed 5/24/2006, with respect to the rejection(s) of claim(s) 1-3, 5-8, 10, 11, and 13 under 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of US 6,769,128.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michener et al. (US 6,323,909) in view of Kim et al. (US 5,799,081) and Na et al. (US 6,366,731) and Knee et al. (US 6,769,128).

- With regard claim 1, Michener et al. discloses a signal a system and method for distributing high definition television (HDTV) and standard definition television (SDTV) signals via satellite for receiving a digital satellite broadcasting signal containing at least one of a first broadcast signal in a first format and a second broadcast signal in a second format (Fig.4 and 5, column 2 lines 24-67, column 3 lines 23-50, and column 7 lines 10-45), comprising:

signal receiving means for receiving said digital satellite broadcasting signal (Fig.1, 4, and 5, and column 3 lines 51-65, and column 7 lines 10-20); judging means for judging whether said digital satellite broadcasting signal received by said signal receiving means is in the first broadcast signal format or in the second broadcast signal format (Fig.4 and 5, and column 7 lines 21); for converting the data structure of the second broadcast signal if it is determined by the judging means that the digital satellite broadcast signal is in said second format to generate a third broadcast signal (Fig.4 and 5 elements 345 and 350, and column 7 line 10 – column 8 line 67); and second output means for outputting the third broadcast signal generated in said conversion means from a digital interface (Fig.5 elements 345 and 350, and column 7 line 10-60).

Michener et al. discloses all of the subject matter as describer in the above paragraph except for specifically teaching that

a) add an analog signal to the analog signal for suppressing copying of the analog signal; and

b) output the first output means the analog signal generated in said generating means from an analog interface; and

c) convert the data structure of the second broadcast signal includes rearranging a timestamp and a packet length of a transport stream of the second broadcast signal, and

d) storage means for storing a user's information, the user's information being a function of the digital satellite broadcasting signal; transmitting means for transmitting the user information from the storage means to a broadcast station; wherein the user information is used to determine access to the digital satellite broadcasting signal.

With regard a), Kim et al. teaches a copy control for a video signal with copyright signals for generating an analog signal and adding to the analog signal for suppressing copying of the analog signal (Fig.1 —4 and column n1 line 20 – column 3 line 62). It is desirable to add an analog signal to the analog signal for suppressing copying of the analog signal in order to prevent the unauthorized copy of a video program (column 2 lines 41-67).

With regard b), Kim et al. further teaches a integrated receiver decoder with the first output means for outputting the analog signal generated in said generating means from an analog interface (Fig.4 element 34 output and column 4 lines 41-67). It is desirable to have an integrated receiver decoder with the first

output means for outputting the analog signal generated in said generating means from an analog interface in order to improve the connectivity of the external devices, such as analog TV, VCR, ...etc.

With regard c), Michener et al. discloses a transport multiplexing to rearrange the transport stream of the HD broadcast signal (which is MPEG-encoded) to a transport stream define in IEEE1394 (the structure conformed with the ATSC system) but fails to specify how to rearrange the data structure from one to another.

However, Na et al. teaches converting the data structure of the second broadcast signal includes rearranging a timestamp and a packet length of a transport stream of the second broadcast signal (column 7 lines 3-67).

It is desirable converting the data structure of the second broadcast signal includes rearranging a timestamp and a packet length of a transport stream of the second broadcast signal in order to improve the data transferring performance between two different standards or data structures.

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the apparatus as taught by Kim et al. and Na et al. in which, add an analog signal to the analog signal for suppressing copying of the analog signal; and output the first output means the analog signal generated in said generating means from an analog interface; and convert the data structure of the second broadcast signal includes rearranging a timestamp and a packet length of a transport stream of the second broadcast

signal, into Micheners' receiver so as to prevent the unauthorized copy of a video program, improve the connectivity of the external devices, and improve the data transferring performance between two different standards or data structures, respectively.

Michener et al., Kim et al. and Na et al. disclose all of the subject matter as described in the above paragraph except for specifically teaching limitation d) as addressed in the above paragraph.

However, Knee et al. discloses an electronic program schedule system for a digital satellite service, CATV service (column 20 lines 63-67) and teaches storage means for storing a user's information, the user's information being a function of the digital satellite broadcasting signal (column 20 lines 51-53); transmitting means for transmitting the user information from the storage means to a broadcast station (column 20 lines 53-56); wherein the user information is used to determine access to the digital satellite broadcasting signal (column 20 lines 59-62 and column 21 lines 11-26).

The electronic guide system as taught by Knee et al. provides the user with comprehensive information about pay-per-view events, premium services or other packaged programming to which the user does not ordinarily subscribe, and which provides the user with the capability to automatically purchase such programming on demand or impulse (column 4 lines 41-47 and column 1 lines 52-57) so that the user can schedule and purchase a pay-per-view program in advance.

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the electronic guide system as taught by Knee et al. into Michener et al., Kim et al. and Nas' receiver so as to provides the user with the capability to automatically purchase such programming on demand or impulse so that the user can schedule and purchase a pay-per-view program in advance.

- In regard claim 2, the limitation that the digital satellite broadcasting signal is DSS (Direct Satellite System) broadcast signal, the first broadcast signal is an SD (Standard Definition) broadcast signal and the second broadcast signal is an HD (High Definition) broadcast signal can further be taught by Michener et al. in column 1 lines 42-64, where DirecTV system is a DSS (Direct Satellite System), and Fig.4 and 5, column 2 lines 24-67, column 3 lines 23-50, and column 7 lines 10-45, respectively.
- With regard claim 3, the limitation that digital interface is IEEE 1394 interface can further be taught by Michener et al. in Fig.5 elements 345 and 350, and column 7 line 10-60.
- With regard claim 6, which is an apparatus claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 7, which is an apparatus claim related to claim 2, all limitation is contained in claim 2. The explanation of all the limitation is already addressed in the above paragraph.



- With regard claim 8, which is an apparatus claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.

5. Claims 5, 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michener et al. (US 6,323,909) and Kim et al. (US 5,799,081), Na et al. (US 6,366,731), and Knee et al. (US 6,769,128) as applied above to claims 1 and 6, and further in view of Okuyama et al. (US 5,987,126).

- With regard claim 5, Michener et al. and Kim et al. and Na et al. and Knee et al. disclose all the subject matter as described in the above paragraph except for specifically teaching that an encrypting circuit is included for encrypting the third broadcast signal.

However, Okuyama et al. teaches an encrypting circuit for encrypting the third broadcast signal (Fig.16 element 207 and column 19 line 57 – column 20 line 6).

It is desired to include an encrypting circuit for encrypting the third broadcast signal in order to further enhance the copyright protection (column 19 lines 45-67). Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the apparatus/method as taught by Okuyama et al. in which, an encrypting circuit for encrypting the third broadcast signal, into Michener et al. and Kim et al. and Knee et al. and Nas' IEEE1394 interface circuit so as to further enhance the copyright protection.

- With regard claim 10, which is an apparatus claim related to claim 5, all limitation is contained in claim 5. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 11, Michener et al. and Kim et al. and Nas et al. and Knee et al. discloses all of the subject matter as described above except for specifically teaching that a recording medium recorded with a program which is readable by a computer and serves to process digital satellite broadcasting signal received.

However, Okuyama et al. further teaches that the method and apparatus for device having a digital interface and a network system using such a device and a copy protection method can be implemented in software stored in a computer-readable medium. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means that can be contain or store a computer program for use by or in connection with a computer-related system or method (column 22 lines 23-30 and Fig. 30 element 113). One skilled in the art would have clearly recognized that the method of “Michener et al. and Kim et al. and Nas et al. and Knee et al.” would have been implemented in a software. The implemented software would perform same function of the hardware for less expense, adaptability, and flexibility. Therefore, it would have been obvious to have used the software in “Michener et al. and Kim et al. and Nas et al. and Knee et al.” as taught by Okuyama et al. in order to reduce cost and improve the adaptability and flexibility of the communication system.

- With regard claim 13, which is a recording medium recorded claim related to claim 10, all limitation is contained in claim 10. The explanation of all the limitation is already addressed in the above paragraph.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M. Wang



Ted M Wang  
Examiner  
Art Unit 2611